

JUDGE ROBERT J. BRYAN

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT TACOMA

UNITED STATES OF AMERICA,

Plaintiff,

v.

DAVID TIPPENS,

Defendant.

No. CR16-5110RJB

**REPLY MEMORANDUM IN
SUPPORT OF MOTION TO
EXCLUDE EVIDENCE**

[Oral Argument Requested]

UNITED STATES OF AMERICA,

Plaintiff,

v.

GERALD LESAN,

Defendant.

No. CR15-387RJB

**REPLY MEMORANDUM IN
SUPPORT OF MOTION TO
EXCLUDE EVIDENCE**

[Oral Argument Requested]

UNITED STATES OF AMERICA,

Plaintiff,

v.

BRUCE LORENTE,

Defendant.

No. CR15-274RJB

**REPLY MEMORANDUM IN
SUPPORT OF MOTION TO
EXCLUDE EVIDENCE**

[Oral Argument Requested]

I. REPLY ARGUMENT

A. The Applicable Law

The Government maintains that discovery is material and subject to disclosure under Rule 16 “only if it is helpful to the development of a possible defense.” Govt. Response at 4. As set forth in the defendants’ motion to exclude, the NIT code discovery is helpful to several possible defenses. *See* dkt. 31.¹ Moreover, the Government misstates the law, because defendants are entitled to much broader discovery to ensure their constitutional rights to effective representation and a fair trial. *See* dkt. 31-1 (Transcript of *Michaud* Findings and Order) at 21 (Finding that “the discovery withheld implicates the defendant’s constitutional rights”).

In *United States v. Soto-Zuniga*, __ F. 3d __, 2016 WL 4932319 *8 (9th Cir. Sept. 16, 2016), the Ninth Circuit reaffirmed that “[m]ateriality is a low threshold.” The Government is required to disclose evidence even if it does nothing more than assist in the in development of pre-trial motions or may lead to admissible evidence. *Id.*

In fact, the Government is required to disclose evidence that may be *inconsistent* with potential defenses. Evidence is “material” for discovery purposes “even if it simply causes a defendant to completely abandon a planned defense and take an entirely different path.” *Id.*, citing *United States v. Hernandez-Meza*, 720 F.3d 760 (9th Cir. 2013).

In *Soto-Zuniga*, the defendant had been arrested for drug trafficking after the police searched his car at an immigration check point. *Id.* at *2. For the purpose of developing potential motions, the defense sought disclosure of stop and arrest statistics for the check point, which were relevant to whether it was constitutional. *Id.* at *5. The defendant also sought law enforcement records related to third parties who may have

¹ Docket citations refer to the docket entries in *Tippens*.

1 been responsible for placing drugs in his vehicle, although there was no direct evidence
2 that they were. *Id.* at *8.

3 Much like the arguments the Government has made here, it argued in *Soto-*
4 *Zuniga* that the defense had made no showing of materiality; had offered no evidence
5 that agents had acted unlawfully; and had failed to show that a third party might be
6 responsible for the alleged crimes. *See id.* The Government also argued that Soto-
7 Zuniga’s discovery demands amounted to “a fishing expedition,” a claim it makes about
8 the discovery requests in this case. *See Soto-Zuniga*, 13-CR-02706-AJB (S.D. Cal.),
9 Dkt. 23-1, November 24, 2013; Govt. Response to Motion to Exclude (dkt. 58) (Govt.
10 Response) at 4.

11 The district court denied the defendant’s discovery demands, finding that they
12 were unlikely to lead to admissible evidence and that granting the requests would
13 needlessly prolong the case. 2016 WL 4932319 at *7. The trial court also observed that
14 “I don’t think putting the Government through the effort of now having to go back and
15 come up with an analysis to satisfy your curiosity would be appropriate,” and that “I
16 don’t see there is any smoke to which we could suggest there would be fire in this
17 case.” *United States v. Soto-Zuniga*, Ninth Circuit No. 14-50529, June 8, 2015,
18 Excerpts of Record (dkt. 10) at 153. In essence, the court denied discovery on the same
19 basis that the Government puts forth here—that the defendant has not made a strong
20 enough showing that providing the documents would prove fruitful.

21 On appeal, the Ninth Circuit held that not only was the defendant entitled to the
22 discovery, but that the trial court had abused its discretion by not ordering it.
23 Importantly for purposes of this case, the court also held that the “sensitive nature” of
24 some of the law enforcement records at issue was immaterial. 2016 WL 4932319 at *8.

25 Recognizing that the Government might have legitimate reasons for not wanting
26 to disclose the records, the Ninth Court nevertheless ordered the trial court to grant the

1 defendant's discovery motion. The only concession to the Government was that the trial
2 court was also instructed to "consider the government's request for a window of time
3 before production to determine whether to continue to pursue this case, and to consider
4 the government's request for protective measures that would maintain the security of
5 the information in the documents while allowing Soto-Zuniga to adequately prepare a
6 defense." *Id.*

7 In this case, the defense has offered every possible accommodation to the
8 Government in terms of protective measures. And no matter how sensitive the NIT
9 discovery may be, that has no bearing on the fact that, as this Court has concluded, it is
10 "central to the case, it's central to the search warrant that was issued, it's central to the
11 proof that might be offered at trial, it is the background for the whole case." Dkt. 31-1
12 (transcript of *Michaud* findings and order) at 19. Under these circumstances, the
13 Government should be given a window of time to choose between production and
14 sanctions.

15 Finally, while ignoring *Soto-Zuniga* (as well as *Hernandez-Meza*, *Budziak*, and
16 all of the other cases cited in the defendants' motion), the Government misconstrues
17 *United States v. Armstrong*, 517 U.S. 546 (1996). *See* Govt. Response at 4. The Ninth
18 Circuit has explained the limited application of *Armstrong*: "Notwithstanding that
19 language and guidance of the Supreme Court, we do not read *Armstrong* to preclude
20 Rule 16(a)(1)(E) discovery related to the constitutionality of a search or seizure. In our
21 view, the holding of *Armstrong* applies to the narrow issue of discovery in selective-
22 prosecution cases." *Soto-Zuniga*, 2016 WL 4932319 *6 (Sept. 19, 2016) (citations
23 omitted); *see also United States v. Thorpe*, 471 F.3d 652, 657 (6th Cir. 2006)
24 (discussing *Armstrong* and noting that, even when discovery is related to a selective-
25 prosecution claim, all a defendant need do is produce "some evidence" of
26 discrimination to obtain the discovery).

1 The Government's reliance on *United States v. Matish* and *United States v.*
 2 *Darby* is also misplaced. Govt. Response at 11. Both these cases were decided in the
 3 Eastern District of Virginia, where the NIT warrant was issued, and not in the Ninth
 4 Circuit. The *Matish* decision is an outlier in its reasoning in several ways, most notably
 5 for holding that people do not have a reasonable expectation of privacy in their
 6 computers. 2016 WL 3545776 at *22-23. And, as the Government's quotation from
 7 *Darby* demonstrates, the judge there was satisfied with Agent Alfin's declarations about
 8 why the defense did not need discovery. *See* Govt. Response at 11.

9 **B. The Levine Declaration**

10 The decision in *Soto-Zuniga* confirms the soundness of this Court's exclusion
 11 order in *Michaud* and makes plain that the Government must elect between production
 12 and inviting discovery sanctions in the instant cases. While the Government has
 13 supplemented its discovery pleadings with a declaration from Prof. Brian Levine, this
 14 declaration does not change the discovery equation for several factual and legal reasons.

15 **1. Levine's Lack of Foundation for his Opinions and Lack of** 16 **Relevant Expertise**

17 Even if Levine's declaration could be taken at face value, all it establishes is
 18 disagreement about complex technical issues between the Government's sole expert
 19 and the defense's six experts (Tsyklevitch, Miller, Kasal, Young, Soghoian, and now
 20 Prof. Leonid Reyzin of Boston University, *see* exh. D). Prof. Levine has never
 21 previously worked on a NIT case and his research in unrelated areas is funded by the
 22 FBI. Levine Declaration at ¶ 1. In contrast, both Prof. Matthew Miller and Shawn Kasal
 23 in particular have done extensive analytical work in *United States v. Cottom* and the
 24 related NIT cases. *See* dks. 31.3 and 31.5.

25 Second, Levine has not looked at or analyzed the NIT discovery that he is
 26 opining about. Levine Declaration at ¶ 3. Instead, he acknowledges that "I have not had

1 access to nor did I review the source code or executable for the FBI exploit that
 2 deployed the NIT payloads. I also have not had access to nor did I review the FBI
 3 server or any ‘generator’ code used to create unique identifiers.” *Id.*; compare Govt.
 4 Response at 8 (asserting that Levine “has looked at the available information, including
 5 the network data.”).

6 It is not surprising that the FBI has not allowed Prof. Levine to examine the
 7 components, given its practice of withholding the details of its hacking capabilities not
 8 only from defendants and judges, but prosecutors and case agents as well. *See* Brad
 9 Heath, *FBI Warned Agents Not to Share Tech Secrets with Prosecutors*, USA Today,
 10 April 20, 2016 (reporting on FOIA disclosures documenting the FBI’s practice of
 11 withholding information from prosecutors and agents);² *see also* Garrett Graff, *The Law*
 12 *Isn’t Keeping up With Technology*, The Washington Post, September 23, 2016
 13 (reporting on DOJ’s efforts to limit disclosures in cyber prosecutions and how “[t]his
 14 situation is stymieing criminal investigations, upending innocents’ lives and making it
 15 harder to set legal boundaries around mass-surveillance programs. The result is that,
 16 when it comes to technology, justice is increasingly out of reach”).³

17 Even if DOJ had shared the NIT exploit and other code with Prof. Levine, it is
 18 not clear that he has the training or experience necessary to render reliable opinions. He
 19 has not published any papers on malware or software exploits, and his *curriculum vitae*
 20 does not list any experience developing or analyzing malware or exploits. As the
 21 Government itself has acknowledged elsewhere, “[t]he vast array of digital hardware
 22 and software available requires even digital experts to specialize in particular systems
 23 and applications.” Exh. A at ¶ 38(a) (Excerpt of August 31, 2016, Affidavit of

24 ² Available at: [http://www.usatoday.com/story/news/2016/04/20/fbi-memos-](http://www.usatoday.com/story/news/2016/04/20/fbi-memos-surveillancesecrecy/83280968)
 25 [surveillancesecrecy/83280968](http://www.usatoday.com/story/news/2016/04/20/fbi-memos-surveillancesecrecy/83280968)

26 ³ Available at: [https://www.washingtonpost.com/posteverything/wp/2016/09/23/government-](https://www.washingtonpost.com/posteverything/wp/2016/09/23/government-lawyers-dont-understand-the-internet-thats-a-problem/?utm_term=.a85a76395164)
[lawyers-dont-understand-the-internet-thats-a-problem/?utm_term=.a85a76395164](https://www.washingtonpost.com/posteverything/wp/2016/09/23/government-lawyers-dont-understand-the-internet-thats-a-problem/?utm_term=.a85a76395164)

1 Homeland Security Special Agent Scott Sutehall in *United States v. Thomas Clark*,
2 MJ16-377).

3 In contrast, for example, Vlad Tsyркlevich has both developed new software
4 exploits and analyzed exploits developed by others, and has specific, hands-on
5 experience developing and analyzing malware used by government agencies which is
6 directly applicable to the issue in these cases.

7 As a consequence, Levine is forced to rely in large part on statements from
8 Agent Alfin, who also lacks firsthand knowledge about the exploit and has no relevant
9 expertise. For example, in discussing the issue of whether the FBI's malware disabled
10 security settings on target computers, Levine acknowledges that it is at least
11 "theoretically possible" for the "exploit" component of an NIT to do that. Levine
12 Declaration at ¶ 11. But Levine goes on to dismiss the issue by simply quoting Alfin's
13 unsubstantiated statement that "the NIT used here and the exploit used to deliver it did
14 not do so." *Id.*

15 Agent Alfin, however, has testified in *United States v. Eure* and in other
16 proceedings that he has not seen any of the NIT components either, nor does he have
17 the expertise to analyze them even if he had. *See also, e.g.*, Levine Declaration at ¶ 9
18 ("We know from *Special Agent Alfin's sworn statement* that the exploit was restricted to
19 allowing the payload to be delivered and executed and did not alters the settings of the
20 computer"); *id.* at ¶ 34 ("*Special Agent Alfin's sworn statement says*" that he reviewed
21 the identifier data and "*Special Agent Alfin's examination of the output*" indicates that
22 there were no errors) (emphasis added)

23 In this regard, it is also significant that Prof. Levine says nothing about whether
24 the NIT components were tested and audited in accordance with NIST standards. *See*
25 dkt. 31.5 (Kasal Declaration) at ¶ 8-9. There is no evidence that they were and, as a
26 result, many of Levine's conclusions are comparable to assuming that a Breathalyzer

1 result in a DUI case is correct without knowing whether the machine was calibrated or
 2 operated in accordance with the manufacturer's instructions. If a blood alcohol reading
 3 is inadmissible at a DUI trial unless the defense has an opportunity to review and
 4 challenge Breathalyzer records, it makes no sense for the Government to maintain that
 5 comparable discovery is not material in a case involving vastly more complex
 6 technology. *See also United States v. Budziak*, 697 F.3d 1105, 1113 (9th Cir. 2012)
 7 (reversed due to prosecution's failure to disclose "EP2P" program, where "the charge
 8 against the defendant is predicated largely on computer software functioning in the
 9 manner described by the government, and the government is the only party with access
 10 to that software.").

11 Moreover, the need for testing and auditing records related to the NIT has been
 12 recently demonstrated by the disclosure of Yahoo's secret cooperation with the NSA
 13 and FBI to access private emails. The program used for that surveillance contained a
 14 basic programming flaw that could give third party hackers access to millions of private
 15 accounts, a mistake that led to the resignation of Yahoo's Chief Technology Officer.
 16 *See Joseph Menn, Yahoo Secretly Scanned Customer Emails for U.S. Intelligence*
 17 *Sources*, The New York Times, October 4, 2016.⁴ Likewise, security flaws have been
 18 found in surveillance software similar to the FBI's NIT that were used by the German
 19 government.⁵

20 2. Basic Gaps and Errors in Levine's Declaration

21 Given Prof. Levine's third-hand knowledge, it is not surprising that he hedges
 22 his bets and qualifies most of his opinions. For example, Levine says that he is not
 23 aware of any "peer reviewed, published articles" discussing the storage of illegal

24 ⁴ Available at:

25 [http://www.nytimes.com/reuters/2016/10/04/business/04reuters-yahoo-nsa-](http://www.nytimes.com/reuters/2016/10/04/business/04reuters-yahoo-nsa-exclusive.html?_r=0)
 26 [exclusive.html?_r=0](http://www.nytimes.com/reuters/2016/10/04/business/04reuters-yahoo-nsa-exclusive.html?_r=0)

⁵ See <https://www.ccc.de/en/updates/2011/staatstrojaner>

1 content on private computers by third parties, as described in Shawn Kasal's
 2 declaration. Levine Declaration at ¶ 20; *see also* ¶ 6(b) (where Levine states that there
 3 is "no evidence to support" the defense's various "hypotheses," a conclusion that
 4 further reading reveals to be largely based on Alfin's assertions).

5 At the same time, however, Levine does not dispute that Vlad Tsyklevich,
 6 Shawn Kasal and Prof. Matthew Miller in particular are "clearly qualified" as experts,
 7 given their experience working on cases where those very things happened as well as
 8 on earlier NIT cases. *See* Levine Declaration at ¶ 17.

9 Instances of third party attacks and remote storage of illicit pornography are in
 10 fact well documented. *See, e.g.*, CBS News, *Viruses Frame PC Owners for Child Porn*,
 11 November 9, 2009 ("Of all the sinister things that Internet viruses can do, this might be
 12 the worst: They can make you an unsuspecting collector of child pornography....
 13 Pedophiles can exploit virus-infected PCs to remotely store and view their stash without
 14 fear they'll get caught.");⁶ Jo Deahl, *Websites Servers Hacked to Host Child Abuse*
 15 *Images*, BBC News, August 5, 2013 (reporting on how malware created files on
 16 business computers to store images and how visitors to legal pornography sites had
 17 been redirected to illegal material.).⁷

18 What Levine may not realize is that the Government itself has elsewhere
 19 acknowledged that the basic forensic problems and issues set forth in the defense
 20 declarations are valid. In a recent computer search warrant application, the Government
 21 explained that child pornography found on a defendant's computer could be the result
 22 of "malware that would allow others to control any seized digital device(s) such as
 23 viruses, Trojan horses, and other forms of malicious software." *See* exh. A. at ¶ 9. And
 24 Agent Alfin himself has testified about how such malware is often undetectable and

25 ⁶ Available at: <http://www.cbsnews.com/news/viruses-frame-pc-owners-for-child-porn/>

26 ⁷ Available at: <http://www.bbc.com/news/uk-23551290>

1 “written so that there is no code left behind on the computer.” *See* exh. B (September
2 14, 2016, testimony of Agent Alfin in *United States v. Chase*, CR15-15 (W.D. N.C.).⁸

3 Similarly, FBI Director James Comey, while describing the possibility that
4 Secretary Clinton’s private email server was hacked by Russia, observed that
5 sophisticated malware is often designed not to leave traces behind: “With respect to
6 potential computer intrusion by hostile actors, we did not find direct evidence that
7 Secretary Clinton’s personal e-mail ... was successfully hacked. But, given the nature
8 of the system and of the actors potentially involved, we assess that we would be
9 unlikely to see such direct evidence.”⁹

10 Given these facts, Prof. Levine’s opinion that “[t]he place to look for malware
11 that has purportedly infected a computer is the computer itself” is simplistic and
12 misleading. *Id.* at ¶ 15; *see also* exh. D (Reyzin Declaration) at ¶ 10 (disputing Levine’s
13 assertion).

14 Prof. Levine’s general opinions about malware and third party control are also
15 contrary to those of Mozilla, the company that produces the Firefox web browser used
16 by Tor. As Mozilla explained in an earlier submission to the Court, “[t]he information
17 contained in the [second] Declaration of Special Agent Alfin suggests that the
18 Government exploited the very type of vulnerability that would allow third parties to
19 obtain total control [of] an unsuspecting user’s computer.” *Michaud* dkt. 195 (Mozilla
20 Motion to Intervene) at 10. Plainly, unless the defense knows what that exploit is, it is
21 unable to confirm the actual vulnerabilities.

22
23
24 ⁸ While Alfin was asked about malware that is designed to “steal someone’s information,” his
25 testimony applies to many types of malware and viruses, and it is consistent with the
26 conclusions of the defense’s experts.

⁹ *See* <https://www.fbi.gov/news/pressrel/press-releases/statement-by-fbi-director-james-b-comey-on-the-investigation-of-secretary-hillary-clinton2019s-use-of-a-personal-e-mail-system>

1 While the Government and Levine make much of the fact that the defense has
 2 not examined any of the defendants' hard drives to look for malware, that point has
 3 dropped by the wayside. *See, e.g.*, Govt. Response at 12. Robert Young has recently
 4 examined a copy of Mr. Tippens's computer hard drive. Consistent with both Mr.
 5 Young's earlier explanation about the impossibility of "reverse engineering" the NIT
 6 malware, as well as Alfin's and FBI Director Comey's statements about how malware
 7 code is often undetectable, Mr. Young has been unable to "reverse engineer" the NIT or
 8 determine what additional security vulnerabilities it created. *See also* dkt. 31-4 at ¶¶ 5-9
 9 (Young declaration).

10 An additional problem, in Mr. Tippens's case at least, is that the agents who
 11 seized his laptop did not follow the standard protocol for preserving the data on it. They
 12 shut the laptop down instead of just unplugging it. *See Best Practices for Computer*
 13 *Forensics*, at 3;¹⁰ Forensic Magazine, *Before You Pull the Plug*, April 1, 2010 ("There
 14 are justifiable reasons to 'pull the plug' on a live computer rather than perform a normal
 15 shutdown. Even just sitting there unattended, numerous processes are ongoing which
 16 continually perform reads and writes between the CPU, the operating system, RAM, the
 17 hard drive, and so on).¹¹ While agents did copy the laptop's "random access memory"
 18 before shutting it down, this did not capture all of the data and shutting down the
 19 computer created a substantial risk that some data was altered or lost. *See also* exh. D
 20 (Reyzin declaration) at ¶ 10.

21 Professor Levine makes a number of other basic errors while dismissing
 22 concerns about the FBI's failure to ensure the chain of custody of the data collected by
 23 the NIT, such as through the use of encryption. Although Levine's declaration includes

24 ¹⁰ Available at: https://www.oas.org/juridico/spanish/cyb_best_pract.pdf. Notably, the Chair of
 25 the Scientific Working Group that issued these standards is Mary Horvath, a Senior Digital
 26 Forensic Examiner with the FBI.

¹¹ Available at: <http://www.forensictmag.com/article/2010/04/you-pull-plug>

four pages of dense, technical information about this topic, most of the information he presents is irrelevant to the arguments we have made:

To begin, Levine acknowledges that data transmitted between the NIT and the FBI's servers could be intercepted and modified at one of multiple routers and servers located along the path between the target computers and the FBI's server. Levine declaration at ¶ 28. But Levine goes on to state that "in general, routers controlled by ISPs [Internet Service Providers] are protected by a professional information technology staff and it is reasonable to expect that was the case here." *Id.* at ¶ 28.

This comment suggests that routers on the Internet are secure and cannot be hacked or accessed by third parties. That is not the case. Indeed, just this summer, a party believed to be the Russian government published some of the code that the National Security Agency uses to hack into Internet routers. *See* Ellen Nakashima, *Powerful NSA Hacking Tools Have Been Revealed Online*, The Washington Post, August 16, 2016.¹² The publication of these tools and the NSA's router exploits also revealed that the routers had been vulnerable to hacking for several years.¹³ In addition to the risk that routers are vulnerable to hacking via unintentional flaws, major manufacturers of routers have also hidden "backdoors" in their products through which third parties with knowledge of the backdoors can covertly gain entry.¹⁴

¹² Available at: https://www.washingtonpost.com/world/national-security/powerful-nsa-hacking-tools-have-been-revealed-online/2016/08/16/bce4f974-63c7-11e6-96c0-37533479f3f5_story.html.

¹³ *See* <http://arstechnica.com/security/2016/08/cisco-confirms-nsa-linked-zeroday-targeted-its-firewalls-for-years/>

¹⁴ *See* <http://arstechnica.com/security/2015/12/unauthorized-code-in-juniper-firewalls-decrypts-encrypted-vpn-traffic/> (describing backdoors placed in routers made by Juniper); [https://intelligence.house.gov/sites/intelligence.house.gov/files/documents/huawei-zte%20investigative%20report%20\(final\).pdf](https://intelligence.house.gov/sites/intelligence.house.gov/files/documents/huawei-zte%20investigative%20report%20(final).pdf) (House intelligence committee report on the national security threat posed by the use of routers and other telecommunications technology made by Chinese router manufacturers with links to the Chinese military).

1 It also makes little sense for Prof. Levine to suggest that Tor is “tamperproof.”
 2 Levine Declaration at ¶ 8. The Tor network is particularly vulnerable to “malicious
 3 nodes,” which involve users who join the Tor network for the purpose of capturing or
 4 corrupting information that is relayed on it. “Just like at coffee shops with open Wi-Fi
 5 spots, attackers can intercept network traffic over the air or by running exit relays and
 6 snooping on Tor users.” Phillip Wintner, *Securing Web Browsing: Protecting the Tor*
 7 *Network*, The Conversation, May 17, 2016.¹⁵

8 One notorious instance of this type of tampering occurred when Carnegie Mellon
 9 University, while cooperating with the FBI, “compromised the network in early 2014
 10 by operating relays and tampering with user traffic.” *Statement from the Tor Project re.*
 11 *the Court’s February 23 Order in U.S. v. Farrell*, February 24, 2016;¹⁶ see also Bruce
 12 Schneir, *How the NSA Attacks Tor/Firefox Users with QUANTUM and FOXACID*,
 13 Schneir on Security, October 7, 2013 (reporting on how the NSA interfered with and
 14 redirected traffic on the Tor network).¹⁷

15 In addition, while Agent Alfin and the government have repeatedly defended the
 16 Government’s failure to use encryption to provide a tamper-evident way for the NIT
 17 and FBI server to communicate, it is notable that Prof. Levine does not defend this
 18 decision. As even Agent Alfin has testified, the lack of encryption during the non-Tor
 19 parts of the NIT transmissions made the evidentiary data in this case vulnerable to
 20 corruption. See Motion to Exclude, dkt. 31-6, exh. F at 92.

21
 22 ¹⁵ Available at: [http://theconversation.com/securing-web-browsing-protecting-the-tor-network-](http://theconversation.com/securing-web-browsing-protecting-the-tor-network-56840)
 23 [56840](http://theconversation.com/securing-web-browsing-protecting-the-tor-network-56840)

24 ¹⁶ Available at: [https://blog.torproject.org/blog/statement-tor-project-re-courts-february-23-](https://blog.torproject.org/blog/statement-tor-project-re-courts-february-23-order-us-v-farrell)
 25 [order-us-v-farrell](https://blog.torproject.org/blog/statement-tor-project-re-courts-february-23-order-us-v-farrell); see also, e.g., Joseph Cox, Confirmed: Carnegie Mellon University Attacked
 26 Tor, Motherboard, February 14, 2016 (available at: [http://motherboard.vice.com/read/carnegie-](http://motherboard.vice.com/read/carnegie-mellon-university-attacked-tor-was-subpoenaed-by-feds)
[mellon-university-attacked-tor-was-subpoenaed-by-feds](http://motherboard.vice.com/read/carnegie-mellon-university-attacked-tor-was-subpoenaed-by-feds)).

¹⁷ Available at: https://www.schneier.com/blog/archives/2013/10/how_the_nsa_att.html

1 Making matters even more problematic, Prof. Levine does not know which
 2 routers the NIT data was transmitted through along its path to the FBI's server. The
 3 Government has provided no information about which organizations were responsible
 4 for those routers; how securely the routers were configured; which manufacturers made
 5 them; or what if any security incidents those organizations may have experienced
 6 during the FBI's Playpen operation. Levine is therefore only able to state that it is
 7 "extremely unlikely" that the NIT data was tampered with or corrupted during
 8 transmission. *See* Levine Declaration at ¶ 28(b).

9 Finally, the instant cases themselves amply demonstrate that the Tor browser is
 10 vulnerable to malware and hacking, and not just by the FBI. As Mozilla has explained,
 11 it has "reason to believe that the Exploit the Government used is an active vulnerability
 12 in its Firefox code base that could be used to compromise users and systems running the
 13 browser." *Michaud*, dkt. 195 at 3. It therefore makes little sense for Prof. Levine to
 14 assert that Tor is "tamperproof" when these very cases illustrate some of its
 15 vulnerabilities.

16 In the final analysis, all that Prof. Levine's declaration establishes are
 17 disagreements between him and the defense experts. There are even significant
 18 differences of opinion between Levine and Agent Alfin. And Levine offers all of his
 19 opinions without having actually looked at the NIT components. He instead relies in
 20 large part on declarations by Alfin, which the Court has previously found wanting.

21
 22 **3. Even if the FBI Expert's Opinions had Better Factual**
 23 **Support, the Defendants Would Still be Entitled to the**
 24 **NIT Discovery**

25 Perhaps most basically, even if Prof. Levine's opinions were better supported,
 26 the defense would still be entitled to the NIT code discovery. As the Ninth Circuit
 stated in *Soto-Zuniga*, discovery "is material even if it simply causes a defendant to

1 completely abandon a planned defense and take an entirely different path.” 2016 WL
 2 4932319 *8. Defendants are not required to accept the opinions of prosecution experts
 3 about the viability of their defenses simply because, like the Wizard of OZ, the
 4 prosecution insists that there is nothing to look at behind the discovery curtain.

5 This is particularly true given that the Government is establishing a track record
 6 of unreliability when it comes to disclosures in cases involving advanced technology.
 7 *See* Green Kozi, *Who Watches the Watchers?: Judge Blasts DOJ’s Refusal to Explain*
 8 *Stingray Use in Attempted Murder Case*, Ars Technica, August 16, 2016 (reporting on
 9 hearings in *United States v. Ellis*, during which Magistrate Judge Donna Ryu criticized
 10 prosecutors for failing to disclose information about the scope of “Stingray” searches
 11 and how the technology functions);¹⁸ *State v. Andrews*, 2016 WL 1254567 at *11-12
 12 (Md. Ct. Spec. App. March 30, 2016) (finding that the FBI had colluded with local law
 13 enforcement to conceal surveillance capabilities from the courts and defendants).

14 Lastly, the Government’s focus on evidence that allegedly proves that the
 15 defendants’ possessed child pornography is not relevant to the discovery issues. *See*,
 16 *e.g.*, Levine Declaration at ¶ 14. All of that evidence is fruit of the NIT searches, and
 17 the defendants have a right to discovery for, at a minimum, potential pre-trial motions,
 18 including additional suppression motions.

19 The Government also overlooks the fact that it did not just charge the defendants
 20 with possession, but elected to also charge them with the more serious offense of
 21 Receipt of Child Pornography. To prove receipt, the Government must prove beyond a
 22 reasonable doubt that the defendants knowingly downloaded specific pictures or videos.
 23 The defendants intend to argue to the juries that the pictures and videos introduced into
 24 evidence by the Government were originally downloaded to the defendants’ computers
 25

26 ¹⁸ Available at: <http://arstechnica.com/tech-policy/2016/08/judge-blasts-doj-refusal-to-explain-stingray-use-in-attempted-murder-case/>

1 as a consequence of the FBI's deployment of malware, or at least that the Government
 2 cannot prove otherwise given the evidentiary mess arising from the FBI's use of
 3 malware in the first place. The NIT discovery is therefore material to potential defenses.

4 While the Government will no doubt continue to disparage those defenses, its
 5 assessment of their merit is irrelevant. *See United States v. Johnson*, 459 F.3d 990, 993
 6 (9th Cir. 2006) (juries, not prosecutors or judges, must decide the viability of potential
 7 defenses, and a defendant is entitled to present his theories of defense "even if his
 8 evidence is weak, insufficient, inconsistent, or of doubtful credibility") (citation
 9 omitted). And, as a practical matter, the position the Government has staked out has
 10 created an evidentiary "Catch 22" that will likely foreclose it from trying to rebut the
 11 defenses at trial. If the Government tries to call expert witnesses for rebuttal, it may be
 12 foreclosed from doing so because the witnesses will have no relevant foundation for
 13 their testimony about how the NIT components actually worked.

14 Alternatively, if the Government allows its experts to analyze all of the
 15 components, it will have to allow the same access to defense experts. Otherwise, it will
 16 be asking the Court to allow the prosecution to present expert testimony that the
 17 defendants will have no meaningful ability to challenge. *See, e.g., Ake v. Oklahoma*,
 18 470 U.S. 68, 82 (1985) (one function of a defense expert is "to assist in preparing the
 19 cross-examination" of a State's expert.). Either way, the Government's decision not to
 20 provide discovery is a dead end, for all practical purposes making it impossible to
 21 present these cases to juries.

22 II. CONCLUSION

23 For the reasons stated above and in the defendants' Motion to Exclude, the
 24 defendants respectfully request that the Court impose appropriate sanctions for the non-
 25 disclosure of material evidence, namely exclusion of all fruits of the NIT searches.

1 DATED this 17th day of October, 2016.

2 Respectfully submitted,

3 s/ Colin Fieman

4 Colin Fieman

5 Attorney for David Tippens

6 s/ Robert Goldsmith

7 Robert Goldsmith

8 Attorney for Gerald Lesan

9 s/ Mohammad Hamoudi

10 Mohammad Hamoudi

11 Attorney for Bruce Lorente

CERTIFICATE OF SERVICE

I hereby certify that on October 17, 2016, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to all parties registered with the CM/ECF system.

s/ Amy Strickling, Paralegal
Federal Public Defender Office